

COLLAPSIBLE TOP FOR ATV

BACKGROUND OF THE INVENTION

1. Field of the Invention.

The present invention relates to the general art of
5 motor vehicles, and to the particular field of tops and
accessories.

2. Discussion of the Related Art.

Many people enjoy riding in an All-Terrain-Vehicle
(ATV). Such vehicles are used for work, recreation, camping,
10 and simply riding about. The vehicles are used on all types
of terrain.

Riding ATVs is most pleasant when the weather is
pleasant. However, many people start a trip in an ATV when
the weather is pleasant only to have the weather turn
15 inclement during the trip. The ATV rider is thus caught in
the inclement weather. Most ATVs do not have any means for
protecting the rider against the elements and thus the rider
will get rained on, or snowed on, or worse.

Therefore, there is a need for a top that can be used
20 on an ATV to protect the rider against the elements.

In most situations, however, the top will not be

desired. Therefore, in most situations, the top should be stored and out of the way.

Therefore, there is a need for a top that can be used on an ATV to protect the rider against the elements and
5 which can be stored when not needed or desired.

If an ATV rider is caught in a downpour, it is most desirable that the top be removed from storage and put in place as quickly and easily as possible. A rider does not want to be fumbling with complex elements while exposed to a
10 downpour.

Therefore, there is a need for a top that can be used on an ATV to protect the rider against the elements and which can be stored when not needed or desired and which can be quickly and easily erected when desired.

15 PRINCIPAL OBJECTS OF THE INVENTION

It is a main object of the present invention to provide a top that can be used on an ATV to protect the rider against the elements.

It is another object of the present invention to
20 provide a top that can be used on an ATV to protect the rider against the elements and which can be stored when not needed or desired.

It is another object of the present invention to

provide a top that can be used on an ATV to protect the rider against the elements and which can be stored when not needed or desired and which can be quickly and easily erected when desired.

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SUMMARY OF THE INVENTION

These, and other, objects are achieved by a collapsible top for an ATV. The top includes a plurality of sections formed of flexible material. The sections have tubes which can accommodate support rods and some of the sections are
10 connected by closure elements, such as zippers, or the like. The top also includes joint elements so a support rod from one section can be coupled to a support rod of another section. Some of the sections have translucent or transparent windows and the top has an anchor system that
15 includes straps that are used to releasably attach the top to the frame of the ATV. The top also includes a manually operable windshield wiper.

Using the ATV top embodying the present invention will permit an ATV rider to have protection against the elements,
20 but only when needed and desired. The top can be stored when not needed or desired, and can be very quickly and easily attached to the ATV.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

Figure 1 is a perspective view of a top for an ATV embodying the present invention.

Figure 2 is a detailed view showing a connection
5 between two frame elements of the top shown in Figure 1.

Figure 3 shows a frame element of the top shown in Figure 1.

Figure 4 is an elevational view of a rear unit of the top shown in Figure 1.

10 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Other objects, features and advantages of the invention will become apparent from a consideration of the following detailed description and the accompanying drawings.

Referring to the Figures, it can be understood that the
15 present invention is embodied in a collapsible top 10 for an ATV. The overall unit comprises an ATV 12, which is only indicated in Figure 1.

A top unit 14 includes first section top 16 and second top section 18. Each top section 16, 18 includes a first
20 surface 20, which is an outside surface when the top unit 14 is in a use orientation on the ATV, and a second surface 22 which is an inside surface when in the use orientation on the ATV. Each section 16, 18 further includes a plurality of

edges, such as edge 24. A hem, such as hem 26, is defined in each edge 24 of each section 16 and 18. Each hem 26 forms a tube.

5 A side unit 30 includes a first window section 32 and a second window section 34. Each window section 32, 34 is formed of flexible material and includes a first surface 36, which is an outside surface when the side unit 30 is in a use orientation on the ATV, and a second surface 38, which is an inside surface when the side unit 30 is in the use
10 orientation on the ATV. A plurality of edges, such as edge 40, are defined on each section 32, 34 of the side unit 30, and a hem, such as hem 42, is defined in each edge 40 of each window section 32, 34. Translucent or transparent material 44 is in each window section 32, 34 of the side
15 unit 30.

The side unit 30 further includes two rear sections, 46 and 48. Each rear section 46, 48 is formed of flexible material and further includes a first surface 50, which is an outside surface when the side unit is in a use
20 orientation on the ATV, and a second surface 52, which is an inside surface when the side unit 30 is in the use orientation on the ATV. Each of the rear sections 46, 48 has a plurality of edges, such as edge 54, and has a hem, such as hem 56, defined in each edge 54 of each rear section 46,

48.

Each window section 32, 34 has one edge, such as edge 60, that is one piece with one edge, such as edge 62, of the first top section 16.

5 A zipper fastener element, such as element 66, is located on an edge 40 of each window section 32, 34 and an adjacent edge of each rear section 46, 48.

10 The top unit 14 further includes a front unit 70 which includes a front section 72 which is formed of flexible material and which further includes a first surface 74, which is an outside surface when the front unit 70 is in a use orientation on the ATV, and a second surface 76, which is an inside surface when the front unit 70 is in the use orientation on the ATV. The front section 72 has a plurality
15 of edges, such as edge 78, and a hem, such as hem 80, defined in each edge 78 of the front section 72 of the window unit. A first edge 82 of the front section 72 of the front unit 70 is one-piece with an edge of the first top
20 section 16 of the top unit 14, a second edge 84 of the front section 72 of the front unit 70 is one-piece with an edge of the first window section 32 of the side unit 30, and a third edge 86 of the front section 72 of the front unit 70 is one-piece with an edge of the second window section 34 of the side unit 30.

A rear unit 90 includes a flexible rear section 92 which has a first edge 94 which is one piece with an edge of the second top section 18, a second edge 96 which is one piece with an edge of one of the two rear sections 46, 48 of the side unit 30, a third edge 98 which is one piece with an edge of a second one of the two rear sections 48, 46 of the side unit 30, and a fourth edge 100 that is located adjacent to the ATV when the rear unit 90 is in a use condition. The rear section 92 of the rear unit 90 further includes a translucent or transparent window 102 and a hem, such as hem 104, defined in each of the first 94, second 96, third 98 and fourth 100 edges of the rear section 92 of the rear unit 90.

The top unit 14 further includes a plurality of support rods, such as support rod 110 shown in Figure 3, each of which is located in a hem when the top unit 14 is in the use condition. Each support rod includes a first end 112 and a second end 114. One end 116 of each rod can be flared and the other end 118 narrowed to be accommodated in a flared end of an adjacent rod. The flared end can include a blind-ended bore 120 which has notches 122 defined therein, and the narrowed 118 end can have projections 124 thereon which are received in the notches 122 to lock a rod to an adjacent rod.

A plurality of joint elements, such as joint element 130, couple adjacent support rods together when the top 14, side 30, front 70 and rear 90 units are in the use orientations on the ATV. The joint element shown in Figure 2
5 forms a 75° angle and is located between the top unit 14 and the front unit 70. A similar joint is located between the top unit 14 and the rear unit 90. The joints located at other locations in the top unit 14 form 90° angles as will be understood by those skilled in the art based on the
10 teaching of the present disclosure.

A manually operated windshield wiper 150 is mounted on the front unit 70. The manually operated windshield wiper 150 includes a handle 152 located adjacent to the second surface 76 of the front section 72 of the front unit 70.

15 A plurality of front strap elements, such as element 160, are mounted on a fourth edge of the front section 74 of the front unit 70 and are adapted to releasably attach to an ATV when the front section 74 is in the use orientation.

A plurality of rear strap elements, such as strap
20 element 166, are mounted on a fourth edge of the rear section 92 of the rear unit 90 and are adapted to releasably attach to an ATV when the rear section 92 is in the use orientation.

The top unit 14, the side unit 30, the rear unit 90,

and the front unit 70 are all one-piece with each other.

As will be understood from the foregoing, the top unit 14 can be dismantled by simply unzipping the zipper elements 66, removing the rod elements from the hems, removing the straps 160, 166 from the ATV, and then collapsing the unit 10. On the other hand, the top unit 14 can be quickly assembled by inserting the rod elements into the hems, attaching the straps 160, 166 to the ATV, and zipping the zipper elements 66.

It is understood that while certain forms of the present invention have been illustrated and described herein, it is not to be limited to the specific forms or arrangements of parts described and shown.